No. 12

An Essay
on the
Sequelæ of the late Intermittent epidemic
as they appeared
in
the counties of Chester, Delaware and Montgomery
by
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of
Pennsylvania
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November the 6th 1824

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On the Sequelæ of the Intermittent epidemic, as they appeared in the practice of my preceptor in the counties of Chester, Delaware, and Montgomery.

It may not be improper to premise my remarks upon this subject by a short history of the origin, nature, and treatment of the epidemic itself.

It made its first appearance in the Autumn of 1820 on the banks of the Schuylkill, a few miles above Norristown, from which it spread in almost every direction attacking indiscriminately persons of every age, colour, and sex.

It generally assumed the characteristics of a regular Intermittent fever so accurately defined by Dr. Cullen, but sometimes put on a very deceptive appearance particular parts of the body only, as the eyes, head, limbs, &c, &c, being affected. Urticaria also, frequently attended the paroxysms.

The Quotidian and Tertian intervals were much the more frequent and tractable, the Quartan

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rare and obstinate. There were also other intervals, merely irregularities of the Tertian and Quartan and of comparatively rare occurrence.

The Summer of 1820 was distinguished by excessive heat and drought premonitory of an epidemic; but it was not preceded by a season deluged by an unusual quantity of rain, as is alledged to be an indispensable requisite for the production of this disease.*

Marsh Miasmata the result of animal and vegetable matter in a state of putrefaction, has long been considered the predisposing cause of this disease. If Animalculæ, or Hydrogen, Nitrogen, &c &c, the supposed constituents of the Miasma arising from animal and vegetable matter in a state of decomposition, were the predisposing cause of Intermittent fever, cases would only occur in the persons of those exposed to this effluvia, in seasons productive of Marsh exhalations. Cases would only occur in low Marshy situations or in the neighbourhood of

* See Ferguson on Marsh Poison. Med: & Phys: Sciences No 13

dams, and stagnant pools. But this is not the fact. Cases have occured in every season, and in every situation. Intermittents were very prevalent in the Spring and Autumn of 1824, when the thermometer was fluctuating between 50 and 70 degrees a temperature far below that at which exhalations arise. They have occured in every Winter month and this year were confined almost exclusively to elevated situations.

But that Intermittents do appear more frequently in seasons of drought and in the neighbourhood of dams and stagnant pools by the concomitant agency of Marsh Miasm, there can be no doubt. Hence I infer that Marsh Miasma is not the predisposing but an exciting cause. The predisposing cause with the nature of which we are wholey unacquainted, is present throughout the whole epidemic year, is capable of being excited into action in all seasons, and under every circumstance, independantly of Marsh Miasma. The various other exciting causes, are

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inclement weather, damp rooms, night air, meagre diet, &c.; but of these Marsh Miasma is decidedly the most active.

It is not my design to detail minutely the treatment of the epidemic, but to pass on to the diseases which followed it. I will briefly remark, however that after the system was duly prepared by emetics, cathartics, venesection, &c, &c, the following remedies were successful, in the order in which they are related: the sulphate of quinine, the extract of quinine, the essential salt of bark; bark in substance either alone or in combination with opium, with salt of tartar and serpentaria, with aromatics, or with rhubarb; arsenic in pills or solution, opium, alum, eupatorium perfoliatum, pollen of hops, sulphur, charcoal, blue vitriol, turpentine; kino in combination with opium; hicia picra, spiders web, dogwood bark and blossoms, red oak, american poplar, and other indigenous articles.

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-ted a number of permanent cures, after various other remedies had been tried with the result of merely suspending the disease.

Mr R——, having had such repeated attacks of the epidemic for the last two years, had become so debilitated, that the attending physician was apprehensive his system would never recover its accustomed vigour. Yet the shock he sustained on being called to see a neighbour that had cut his throat, permanently removed his disease.

Mr W——, had a tertian fever regularly for about two months, without being able to remove it by any of the usual remedies. Feeling pretty well during the intermission he concluded to take a ride on horseback; and on the way was attacked with a paroxysm which debilitated him very much, the horse being spirited and restive ran, at full speed about two miles, he was much affrighted and so effectually cured, that he has never had another paroxysm, although it is now two years since he —

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Mr H——, had long been afflicted with the prevailing epidemic; while riding through the Schuylkill on horseback previous to the accession of the paroxysm, his horse stumbled and plunged him over his head into the river. Although very much shocked he was able to reach the shore without assistance, and had the gratification to find that his paroxysm was prevented, and his disease never revisited him.

A number of other curious cases might be related such as a cure being effected by being upset in a boat, by breaking through the ice &c, &c.

In the cases of infants and delicate adults or where there was great irritability of stomach, back enemata, back cataplasms, and back jackets were of the utmost importance.

Deaths very rarely occurred, and only in patients whose constitutions were undermined by intemperance or previous disease.

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Persons having recovered from an attack of our epidemic were very prone to relapse; the best preventives of which were, to avoid the exciting causes, as far as practicable, to keep the bowels daily open, and above all to wear flannel next the skin: of the utility of which in the prevention of fevers we have the concurring opinions of many eminent practitioners* confirmed by experimental observation.

The Sequelæ of the epidemic.

Tradyce in his fourth dissertation on fever, remarks, that a regular Quartan intermittent is more apt to subject patients to diseases arising out of itself than a Tertian and a Tertian more than a Quotidian. This, however, did not appear to be the case, as regards our epidemic. The Quotidian Tertian and Quartan were alike productive of morbid Sequelæ; which may be divided into primary and secondary. The primary, were, indurations of the liver and spleen, debility, inflamation of the lungs, enlarge-
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-ment of the abdomen, and constipation. The secon-
-dary sequela or result of the primary were dyspepsia
dropsies, jaundice, diarrhea, and dysentery. There
were no instances of mania, of rachitis, &c, the re-
sult of former epidemics.*

Indurations of the liver and spleen have been im-
-properly attributed to the use of the Peruvian bark,
from its acting specifically and without any sensi-
-ble evacuation. They are no doubt induced by the
inordinate quantity of blood which is propelled from
the capillaries into the large internal vessels, during
the paroxysm, producing inflamation and subsequent-
-ly induration.

The characteristics of induration of the liver, were,
tumefaction, and hardness of that viscus accompa-
-nied with an obtuse pain in the right hypo-
-chondriac region, which was increased by pressure,
bowels constipated, faces pale. The pulse was full,
sometimes, hard and corded.

Indurations

* See Sydenham on the Intermt. of 1661 - 2 - 384

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Induration of the spleen had nearly the same characteristics; the pain and tumefaction, however, being on the opposite side

The remedies most efficacious in either case divided themselves into general and topical; the former, were venesection, mercurial purgatives, and if the cases proved obstinate mercury, and nitric acid to produce ptyalism, were found successful remedies. The topical remedies were blisters, cups, leeches, Nitro Muriatic acid bath &c.

Debility was a very frequent effect of our epidemic and demanded our immediate attention. The remedies most effectual in restoring the system to its wonted vigour, were, the vegetable bitters, the cinchona, mineral acids, chalybeates, moderate exercise in the open air and the cold bath. The diet should be nutritive and moderately stimulating.

Inflamation of the lungs, was another consequence of our epidemic. It occurred chiefly in persons naturally predisposed to pulmonary affections. The in-

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-ordinate determination of blood to these organs during the paroxysm was no doubt the cause of its production. The symptoms which attended it, were cough with expectoration during the intermission, dyspnoea and cough without expectoration during the paroxysm, with a sense of constriction about the chest. The pulse was full, frequent & sometimes corded.

The remedies adapted to the removal of this disease, were topical depletion by cups, leeches, blisters; diaphoretics, expectorants &c, &c. Phthisis pulmonalis will in a few instances, probably, be the result. Mr K—s, in the Autumn of 1822 was attacked by an intermittent with a quotidean interval, which as well as subsequent relapses yielded to the use of the peruvian bark. In the Autumn of 1823 he was again attacked, (being much exposed to the evening and morning damps) which has left him labouring under a cough, gradually increasing, unabated by all the remedies he has tried, either popular or those administered under medical ad-

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-vice. The symptoms are such, as would lead to the opinion that it will finally terminate in confirmed Phthisis Pulmonalis, and death.

In some cases the abdomen was enormously enlarged, resembling ascites in appearance: Yet by the most critical examination the presence of water could not be detected. To what this tumefaction was owing I am unable to give any satisfactory solution. The disorder yielded, however, in every instance, to cathartic medicines.

Constipation was by far the most frequent result of our epidemic. It was probably owing to a decreased secretion of bile, the faces being of a greyish colour. It was in most instances very readily removed by the following prescription.

℞ Rad: Rhei Pulv: ℥ij

Aloes ---- ℥j

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Divide into sixty pills, one or two of which were taken at bed time according to circumstances.

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Several well characterized cases of dyspepsia appeared during the prevalence of our epidemic as a consequence of it; a disease which has not, I believe, been noticed as a result of former Intermittent epidemics: One of the most interesting of which is the following, Miss B——, aged 57, had an attack of Intermittent fever in the Autumn of 1820 and subsequently in the Autumns of 1822 & 3 - with repeated relapses. In the Summer of 1824 she was again attacked which proved much more obstinate, and was accompanied with nausea, irritability of stomach and loss of appetite; the Intermittent was, however, removed by the sulphate of quinine, preceded by cathartics, but dyspepsia remained as a consequence. There was great irritability of stomach and an almost incredible discharge of mucus from that viscus, which gradually increased rather than diminished by the use of the usual remedies for such affections until every hope of her recovery had vanished and she was apparently on the very brink of the grave. The

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infusion of mustard was then resorted to as a palliative. Its effects were astonishing. On the following morning the discharge was decreased about one half, and continued to diminish daily for about three weeks, when it entirely ceased during which time her appetite slowly improved, her strength increased and after about two months, she was in the enjoyment of health, which has continued to the present time.

Dropsies were a frequent result of former Intermittents, but in the present epidemic, in the practice of my preceptor, one case only occurred. Dropsies may be either a consequence of visceral obstructions or of debility. The case above mentioned in which anasarca and ascites were combined, was the result of the latter. The abdomen and limbs of the patient were very much enlarged, the fluctuation of water was evident accompanied with costiveness, great debility and emaciation

emaciation, This disease yielded to cathartics of cream of tartar and jalap followed by calomel in combination with various diuretics. His strength was restored by a combination of bark, snake root, and orange peel in infusion.

Hepatic tumours not unfrequently prevent the bile from getting into the duodenum and occasion it to be absorbed, thus producing jaundice. The symptoms which attended on jaundice were, yellowness of the skin, particularly of the external membrane of the eyes, obtuse pain in the region of the liver, bitter taste in the mouth, fæces pale, urine high coloured. The pulse was full and frequent. The disease generally yielded to blisters, cups &c. to the region of the liver, aided by mercurial purgatives. In a few cases mercury and nitric acid, in small doses was necessary.

Diarrhœa occasionally was blended with our epidemic

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epidemic and occasionally followed it. In the former case it was found good practice, to combine cinchona or sulphate of quinine with laudanum and powdered galls or kino, &c. In the latter powdered galls and cinnamon with weak brandy toddy had the happiest effect, tincture of Rhubarb and laudanum was also found salutary, the vegetable bitters were administered at the same time.

During the Autumn of 1823, the dysentery followed in a number of cases our epidemic, and in others was blended with it. It became a subject of deliberation, with any preceptor, whether in the exhibition of his remedies he should have an eye to both diseases or direct his whole force exclusively at one. A few days observation, however, ~~[illegible]~~ hint that the affection of the bowels only demanded his attention; as in every case, the Intermittent fever gave place to the dysentery; which I consider a strong argument in favour of cathartic remedies

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edies in the treatment of our epidemic. In the year 1822, sugar of lead, was administered in combination with Ipecacuana and opium with the happiest effect in this disease but in 1823, the cases assuming a typhoid character, it was found rather prejudicial than salutary. Ipecacuana and opium were however, exhibited with great advantage, the prima via being first cleansed by mild cathartics. Oleaginous mixtures, palliative enemata, mucilaginous drinks, epispastics &c. were used as auxiliaries, to the no small relief of the suffering patients. In 1824, the cases were highly inflamatory, admitting of the free use of the lancet. The saccharum saturni was not again resorted to.

Permit me to conclude this essay, by presenting to the professors of the medical department of the University of Pennsylvania my warmest acknowledgements for the valuable instructions, I have received from their lectures and my sincerest wishes for their individual happiness

Vivete, valetque.